

[illegible]

Example 2														
	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/mole of oxide	moles of metal	metal	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment				
	CeO2	172	1.65	0.0096	1	0.0096	Ce	0.12	0.12					
	Tb4O7	748	43.07	0.0576	4	0.2303	Tb	2.94	2.94					
	Al2O3	102	21.13	0.2072	2	0.4143	Al	5	5.29	Excess Al2O3				

Example 3														
	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/mole of oxide	moles of metal	metal	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment				
	Y2O3	226	32.18	0.1424	2	0.2848	Y	2.85	2.85					
	CeO2	172	2.07	0.0120	1	0.0120	Ce	0.12	0.12					
	Tb4O7	748	0.56	0.0007	4	0.0030	Tb	0.03	0.03					
	Al2O3	102	26.41	0.2589	2	0.5178	Al	5	5.18	Excess Al2O3				

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<b>Example</b>	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/mole of oxide	moles of metal	metals	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment
	Y <sub>2</sub> O <sub>3</sub>	226	30.82	0.1364	2	0.2727	Y	2.73	2.73	
	CeO <sub>2</sub>	172	4.13	0.0240	1	0.0240	Ce	0.24	0.24	
	Tb <sub>4</sub> O <sub>7</sub>	748	0.56	0.0007	4	0.0030	Tb	0.03	0.03	
	Al <sub>2</sub> O <sub>3</sub>	102	26.41	0.2589	2	0.5178	Al	5	5.18	Excess Al <sub>2</sub> O <sub>3</sub>

Example														
	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/mole of oxide	moles of metal	metal	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment				
	CeO <sub>2</sub>	172	1.65	0.0096	1	0.0096	Ce	0.12	0.12					
	Tb <sub>4</sub> O <sub>7</sub>	748	43.07	0.0576	4	0.2303	Tb	2.88	2.88					
	Al <sub>2</sub> O <sub>3</sub>	102	21.13	0.2072	2	0.4143	Al	5	5.18	Excess Al <sub>2</sub> O <sub>3</sub>				

Example	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/oxide	moles of metal	metal	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment
Example 7	Ga <sub>2</sub> O <sub>3</sub>	187	7.5	0.0401	2	0.0802	Ga	1	1.00	
	CeO <sub>2</sub>	172	1.65	0.0096	1	0.0096	Ce	0.12	0.12	
	Tb <sub>4</sub> O <sub>7</sub>	748	43.07	0.0576	4	0.2303	Tb	2.88	2.88	
	Al <sub>2</sub> O <sub>3</sub>	102	17.05	0.1672	2	0.3343	Al	4	4.18	Excess Al <sub>2</sub> O <sub>3</sub>

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Example	Oxide	Mol. Wt. (g/mole)	Mass (g)	moles of oxide	moles of metal/mole of oxide	moles of metal	metal	Moles of metal from formula	Calculated Phosphor Composition from Oxide Mixture	Comment
Example 9										
	Y <sub>2</sub> O <sub>3</sub>	226	4880	21.5929	2	43.1858	Y	1.5	1.50	
	Gd <sub>2</sub> O <sub>3</sub>	362.5	7050	19.4483	2	38.8966	Gd	1.35	1.35	
	CeO <sub>2</sub>	172	595	3.4593	1	3.4593	Ce	0.12	0.12	
	Tb <sub>4</sub> O <sub>7</sub>	748	161.6	0.2160	4	0.8642	Tb	0.03	0.03	
	Al <sub>2</sub> O <sub>3</sub>	102	7340	71.9608	2	143.9216	Al	5	5.00	Stoichiometric